EXHIBIT C

[0060] For purposes of clarity Fig. 3 is schematic in that the bi-rotational pump **(2a)** and its reservoir enclosure **(13a)** and the actuator cylinder **(3a)**, including piston rod **(4a)** and piston **(4b),** are shown in distinct, vertically spaced relationship. The reservoir **(13a)** situated below the pump **(2a)**, is the source of fluid which passes (via inlet 8a) into and through the pump into either the lower chamber (15a) or upper chamber (16a) depending upon the direction of the rotation of the pump (2a). [Chambers (15a) and (16a) are separated by wall (14a).] Continued rotation of the pump (2a) and the corresponding gears (40 and 42) urges fluid either out of chamber (15a) or (16a) via conduit (6a) or (7a) upwardly into one or the other ends of the actuator (3a). This liquid pressure in the actuator (3a) causes a movement of the piston (4b) and connected piston rod (4a) in either a retract or extend direction. The above discussion of FIG. 3 is more detailed in the explanation of FIGS. 4, 5 and 6 hereinafter taken also with the data in TABLE X below in which Column 1 identifies the ball valves in question.

TABLE X

VALVE	**FIG. 4 No Rotation**	**FIG. 5 ccw Lower Chamber (15a) Extend**	**FIG. 6 cw Upper Chamber (16a) Retract**
23	valve closed	valve closed	valve open
18a	" closed	" open	" closed
21a	" closed	" open	" closed
30	" closed	" closed	" open
20a	" n/a	" closed	" open
28	" n/a	" open	" closed

The other columns identify FIGS. 4, 5, and 6 showing the position of the valve as either open or closed, depending upon the rotation of the driveshaft (35) and the connecting gears. FIG. 4 shows the valve position where there is "no rotation" of the driveshaft (35). FIG. 5 shows the position of the various valves (open or closed) where the rotation of the driveshaft (35) is counterclockwise (ccw). FIG. 6 shows the open or closed position of the corresponding valve when the driveshaft (35) is rotating in a clockwise (cw) rotation. TABLE X also shows in the column headed FIG. 5 that the piston (4b) is in an extended direction with counterclockwise rotation while

FIG. 6 shows that the valve positions, as shown, for achieving a retracting movement of the piston (4a) and the connected piston rod (4b).

[0061] In FIG. 4, as noted in TABLE X, represents a "no rotation" position of the driveshaft (35) and wherein valves (23), (18a), (21a) and (30) are closed. They are closed because with "no rotation" of the driveshaft (35) there is no pressure in either chamber (15a) or (16a) to actuate the pilot pistons (19a) or (25), either of which would open the corresponding valves (18a) or (23) respectively. Likewise valves (30) and (21a) are closed and held closed by the spring as shown because there is no pressure to overcome the resistance of the spring holding the respective valves (30) and (21a) in the closed position.

[0063] Referring to FIG 5 and TABLE X the driveshaft (35) is rotating in a counterclockwise (ccw) direction resulting in a gradual build up of pressure in the lower chamber (15a). As a result of the pressure exerted upwardly against pilot piston (19a) sufficient to compress the ball (18a) against the opposed spring thereby opening valve (18a). Simultaneously the pressure build up in the lower chamber (15a) compresses ball (21a) against the opposed spring opening the valve (21a). Also simultaneously the ball valve (20a) is held in the closed position by the increased pressure. More importantly the more increased pressure causes the fluid to proceed as exiting (as shown by the arrow) out conduit (6a) into the right side of the actuator (3a) exerting pressure on the piston (4b), this forces the piston (4b) to the left to the extend position. This displaces the liquid to the left of piston (4b) down conduit (7a) and into the upper chamber (16a) as noted. This gradually increases the pressure in the upper chamber (16a), which is relieved by the opening or the downward movement of the ball (28) and also the valve (18a) urged upwardly by the pilot piston (19a). Of course, the pressure in chamber (15a) still occurs by reason of the counterclockwise movement of the driveshaft (35) and the intermeshing gears (40 and 42).

[0064] Referring now to FIG. 6 and TABLE X the parts/components of the pump (2a) and the actuator (3a) are shown when the drive shaft (35) is moving in a clockwise (cw) direction of rotation, resulting in movement of

the piston (4b) to the right into the retracted position. The fluid from the pump (2a) now exerts pressure causing the ball valves (28, 18a, 21a) that were open to become closed and ball valves (23, 30, 20a) that were closed to become open. As a result then, this reversal of the rotation causes the fluid to move out of the upper chamber (16a) under pressure, through conduit (7a) into the actuator (3a) to the left of piston (4b). This in turn moves liquid out of the opposite end of the actuator (3a) down conduit (6a) into the lower chamber (15a) and through valve (23) back to the reservoir (13a) to initiate a reversal to the FIG. 5 condition by reason of changing the rotation of the pump (2a) from clockwise (cw) to counterclockwise (ccw).